

I claim:

1. A device comprising:
a first field effect transistor having a gate, a source, and a drain;
a second field effect transistor having a gate, a source, and a drain; and
a bias transistor, wherein the sources and drains of the first and second field effect transistors are coupled to the bias transistor so that an impedance between the gates of the first and second field effect transistors is substantially capacitive.
2. The device as set forth in claim 1, wherein the sources and drains of the first and second field effect transistors are coupled so as to have a substantially same voltage potential.
3. The device as set forth in claim 2, wherein the bias transistor is coupled to the first and second field effect transistors so as to have substantially zero DC bias current.
4. The device as set forth in claim 3, wherein the bias transistor is a field effect transistor having a gate, source, and drain, wherein the gate and drain of the bias transistor are at a substantially same voltage potential.
5. The device as set forth in claim 4, wherein the drain of the bias transistor and the sources and drains of the first and second field effect transistors are at a substantially same voltage potential.

6. The device as set forth in claim 3, wherein the bias transistor comprises a bipolar transistor having a base, collector, and emitter, wherein the base and collector are at a substantially same voltage potential.

7. The device as set forth in claim 6, wherein the collector of the bias transistor and the sources and drains of the first and second field effect transistors are at a substantially same voltage potential.

8. The device as set forth in claim 1, wherein the bias transistor is coupled to the first and second field effect transistors so as to have substantially zero DC bias current.

9. A device comprising:
a first field effect transistor having a gate, source, and drain;
a second field effect transistor having a gate, source, and drain; and
a third field effect transistor having a gate, source, and drain, wherein the sources and drains of the first and second field effect transistors and the drain and gate of the third field effect transistor are all connected to each other.

10. The device as set forth in claim 9, wherein an impedance between the gates of the first and second field effect transistors is substantially capacitive.

11. A device comprising:

a first field effect transistor having a gate, source, and drain;
a second field effect transistor having a gate, source, and drain; and
a bipolar transistor having a base, emitter, and collector, wherein the sources and drains of the first and second field effect transistors and the base and collector of the bipolar transistor are all connected to each other.

12. The device as set forth in claim 11, wherein an impedance between the gates of the first and second field effect transistors is substantially capacitive.

13. An amplifier comprising:

an output stage having an output port and an input port; and

a device comprising:

a first field effect transistor having a gate, source, and drain;

a second field effect transistor having a gate, source, and drain; and

a third field effect transistor having a gate, source, and drain, wherein the sources and drains of the first and second field effect transistors and the drain and gate of the third field effect transistor are all connected to each other;

wherein the gate of the first field effect transistor is connected to the output port and the gate of the second field effect transistor is connected to the input port.

14. The device as set forth in claim 13, wherein the output stage comprises a field effect transistor having a gate and a drain, wherein the gate of the output stage is

connected to the input port and the drain of the output stage is connected to the output port.

15. An amplifier comprising:

an output stage having an output port and an input port; and

a device comprising:

a first field effect transistor having a gate, source, and drain;

a second field effect transistor having a gate, source, and drain; and

a bipolar transistor having a base, emitter, and collector, wherein the sources and drains of the first and second field effect transistors and the base and collector of the bipolar transistor are all connected to each other;

wherein the gate of the first field effect transistor is connected to the output port and the gate of the second field effect transistor is connected to the input port.

16. The device as set forth in claim 15, wherein the output stage comprises a field effect transistor having a gate and a drain, wherein the gate of the output stage is connected to the input port and the drain of the output stage is connected to the output port.

17. A communication circuit comprising:

an amplifier comprising a capacitor to provide compensation, the capacitor comprising:

a first field effect transistor having a gate, a source, and a drain;

a second field effect transistor having a gate, a source, and a drain; and
a bias transistor, wherein the sources and drains of the first and second
field effect transistors are coupled to the bias transistor so that an impedance between the
gates of the first and second field effect transistors provides the compensation.

18. The communication circuit as set forth in claim 17, wherein the sources and
drains of the first and second field effect transistors are coupled to each other so as to be
at a substantially same voltage potential.

19. The communication circuit as set forth in claim 18, wherein the bias transistor is a
field effect transistor having a gate, source, and drain, wherein the gate and drain of the
bias transistor are coupled to the sources and drains of the first and second field effect
transistors so as to be at the substantially same voltage potential.

20. The communication circuit as set forth in claim 18, wherein the bias transistor is a
bipolar transistor having a base, emitter, and collector, wherein the base and collector are
coupled to the sources and drains of the first and second field effect transistor so as to be
at the substantially same voltage potential.